

REMARKS

Claims 1-3, 5-7, and 10-19 have been examined and stand rejected on prior art grounds.

Applicants hereby cancel claims 14-19 without prejudice or disclaimer. Hence, claims 1-3, 5-7, and 10-13 are all the claims pending in the application.

Statement of Substance of Interview

Applicants' representative, Sean M. Conner, conducted a telephone conference with Examiner Michael C. Colucci on April 3, 2008. The purpose of the interview was to discuss the PTOL-326 (Office Action Summary) of the present Office Action which indicates that some of the certified copies of the priority documents have been received and that the detailed Office Action includes a list of the certified copies not received.

Applicants' representative noted that the Office Action does not include such a list and that previous Office Actions have indicated that all of the certified copies of the priority documents have been received.

The Examiner indicated that the PTOL-326 is incorrect and that all of the certified copies of the priority documents have been received, as indicated in the previous Office Actions.

It is respectfully submitted that the instant STATEMENT OF SUBSTANCE OF INTERVIEW complies with the requirements of 37 C.F.R. §§1.2 and 1.133 and MPEP §713.04.

Claim Rejections - 35 U.S.C. § 103(a)

The Examiner has rejected claims 1, 2, 5-7, and 10-13 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,253,185 to Arean et al. (hereinafter "Arean") in view of U.S. Patent No. 5,490,130 to Akigiri (hereinafter "Akigiri"). The Examiner has rejected claim 3 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Arean in view of Akigiri and further in view of U.S. Patent No. 6,456,963 to Araki (hereinafter "Araki").

The Examiner has rejected claims 14-19 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Arean in view of Akigiri and further in view of U.S. Patent Publication No. 2002/0120442 to Hotta (hereinafter “Hotta”). Applicants submit that the claims are patentable at least for the following reasons.

Claim 1

For example, claim 1 recites that a masking threshold calculator calculates a scalefactor band gain for each frequency band and a quantization noise curve adjuster adjusts a common gain to meet a target bit rate while fixing the scalefactor band gain for each frequency band.

The Examiner alleges that col. 12, lines 9-33 of Arean teaches the claimed quantization noise curve adjuster. However, this portion of Arean discloses that quantization step sizes are adjusted within each of the factor bands while taking into account a target bit rate. Clearly, the adjustment of Arean’s factor bands are made on an individual basis. Thus, Arean does not teach adjusting a common gain while fixing the scalefactor band gain for each frequency band, as recited by claim 1. Akigiri does not cure this deficiency of Arean. Instead, Akigiri’s method of adaptive bit allocation is performed on an individual band by band basis (col. 20, lines 27-31).

Moreover, claim 1 recites approximating an energy distribution curve to a distribution pattern of noise threshold levels without using a psychoacoustic model.

The Examiner has previously relied on Arean’s quantization to allegedly teach the claimed approximating. However, Arean’s quantization uses a psychoacoustic model (col. 12, lines 13-14). Thus, Arean does not teach approximating an energy distribution curve to a distribution pattern of noise threshold levels without using a psychoacoustic model, as required by claim 1. Akigiri does not cure this deficiency, as Akigiri also uses a psychoacoustic model (col. 17, lines 52-54).

Paragraphs 275 and 276 of Hotta disclose that the processing of an SMR operation section 13 of a psychoacoustic model 1 may be bypassed depending on whether an input signal is a sine wave or not. Here, Hotta teaches switching between use and nonuse of a result from a calculation by a psychoacoustic model. Nonetheless, Hotta's system still discloses the use of the psychoacoustic model 1. Thus, Hotta does not disclose approximating an energy distribution curve to a distribution pattern of noise threshold levels without using a psychoacoustic model and therefore does not cure the above deficiency of Arean and Akigiri.

Furthermore, claim 1 recites that in order to approximate the energy distribution curve to the distribution pattern of noise threshold levels, quantization noise distribution is adjusted by relatively adjusting a gain for each frequency band based on the calculated energy distribution curve which connects calculated energy levels for each frequency band.

The Examiner maintains that Akigiri teaches this feature. However, the portions cited by the Examiner (Col. 18 line 44 – Col. 19 line 25) merely discuss convolution processing and do not teach how an energy distribution curve is approximated to a distribution pattern of noise threshold levels. Thus, Akigiri does not teach that in order to approximate the energy distribution curve to the distribution pattern of noise threshold levels, quantization noise distribution is adjusted by relatively adjusting a gain for each frequency band based on the calculated energy distribution curve which connects calculated energy levels for each frequency band. Arean and Hotta do not cure this deficiency.

Because Arean, Akigiri, and Hotta, alone or in combination, do not teach or suggest all of the features of claim 1, Applicants submit that the claim is patentable.

Claims 2 and 5

Because claims 2 and 5 are dependent on claim 1, Applicants submit that these claims are patentable at least by virtue of their dependency.

Claim 3

Because claim 3 is dependent on claim 1, and because Araki does not cure the deficiencies of Arean, Akigiri, and Hotta, Applicants submit that claim 3 is patentable at least by virtue of its dependency.

Claims 6, 7, and 10-13

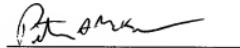
Independent claims 6, 7, and 11-13 recite features similar to those discussed above in conjunction with claim 1. Accordingly, Applicants submit that these claims are patentable at least for reasons analogous to those discussed above regarding claim 1. Applicants also submit that claim 10 is patentable at least by virtue of its dependency on claim 7.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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23373
CUSTOMER NUMBER

Date: June 3, 2008